

ELECTRICAL LEAD WORKER

213

DEPARTMENT: County Administration/Facilities Management/Building Maintenance

NATURE OF WORK:

Plans, schedules, and leads in-service maintenance, repair, and minor construction for electrical components of County buildings; and coordinates with contractors for work performed by contract.

Performs skilled electrical work including installation, maintenance, and repair work on electrical wiring systems, controls, and machinery in all County facilities.

Work is performed under the general supervision of the Facilities Management Administrator.

ESSENTIAL FUNCTIONS OF THE JOB:

Plans, designs, estimates, and installs electrical layouts for minor construction and renovation projects for County building and facilities.

Installs electrical conduit; connects wiring to lighting fixtures and power equipment installs control distribution apparatus, such as switches, relays, and circuit breaker panels; connects power cables to equipment and installs grounding leads.

Conducts routine inspections of County buildings to locate and diagnose electrical malfunctions, using appropriate test instruments and diagnostic procedures. Repairs malfunction by such methods as replacing burnt out elements and fuses, bypassing or replacing defective wiring, filing, switch contact points, and cleaning or rewiring motors, using hand tools. Tests electrical equipment for safety and efficiency, using standard test equipment, and by observing functioning.

Tests continuity of circuit to ensure electrical compatibility and safety of all components; observes functioning of installed equipment or system to detect hazards and need for adjustments, relocation, or replacement; repairs faulty equipment or systems; inspects circuits and wiring for specified shielding and grounding and repairs or rewires system according to building codes and safety regulations.

Oversees the implementation of Electrical Preventive Maintenance Program.

Works with electrical high reach (bucket truck) for parking lot and ball field high voltage lighting.

Brings existing electrical systems up to code standards.

Directs the work of subordinate electrical staff and others as necessary.

Arranges for the purchase of necessary supplies, materials, tools, and equipment.

Coordinates with contractors and staff concerning contract installations and repairs.

Coordinates with all departments and co-workers any repairs or maintenance that cannot be done during regular working days and schedules it as necessary to be completed.

Acquires necessary permits for work to be done to ensure work is completed in accordance with local County codes.

Responds to emergency, after hours, calls for electrical and HVAC systems.

Assists the Facilities Management Administrator in the development and administration of the Division budget and expenditure control.

Recommends personnel actions such as hiring, performance appraisal, training, counseling, or discipline.

Ensures that work is performed safely, in accordance with departmental safety procedures and the County Safety Program. Operates equipment safely and reports any unsafe work conditions to supervisor.

Performs other related duties as assigned.

JOB LOCATION AND EQUIPMENT OPERATED:

Duties are performed at various County facilities and require lifting, climbing, and working at varied heights, and the operation of various hand and power tools.

REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:

Considerable knowledge of the provisions of the national and local electrical codes.

Considerable knowledge of connecting, wiring, and devices used in the conduction of electricity.

Ability to diagnose and correct electrical power and lighting failures.

Ability to read wiring diagrams and schematics.

Thorough knowledge of the safe and effective use of hand and power tools and other equipment of the electrical trade.

Ability to learn County and Departmental policies, procedures, rules, and regulations.

Ability to exercise independent judgement and make independent decisions;
and to competently plan and lead the work of subordinate or collateral employees.

Ability to work harmoniously with other employees and the general public in an effective and courteous manner.

Ability to follow oral and written instructions.

MINIMUM QUALIFICATIONS:

High school diploma or equivalent; and extensive work experience in the electrical trades; or any equivalent combination of acceptable education and experience providing the knowledge, abilities, and skills cited above.

NECESSARY SPECIAL QUALIFICATIONS:

Possession of a valid Virginia driver's license and have an a record that meets James City County's criteria.

Possession of Master Electrician Certification.

Date: September 2001
ellewrk.213

IDENTIFICATION OF GENERAL APTITUDES AND PHYSICAL REQUIREMENTS

Position Title Electrical Lead Worker

Position Number 213

Department County Administration

Division Facilities Management/Building Maintenance

The Americans with Disabilities Act requires that we identify the general aptitudes and physical requirements needed to perform the job listed above. Individuals who have the position must be able to perform all essential job functions unaided or with reasonable accommodation.

I. Mental Abilities: General learning ability. The ability to “catch on” or understand instructions and underlying principles.

- ☒ Ability to understand and follow oral instruction
- ☒ Ability to understand and follow written instruction
- ☒ Ability to guide and/or give instructions
- ☐ Ability to make decisions in accordance with established procedures and policies
- ☐ Not essential to job function

II. Verbal Abilities: Ability to understand meanings of words and ideas associated with them and to use them effectively. To comprehend language, to understand relationships between words, and to understand meanings of whole sentences and paragraphs. To present information or ideas clearly.

1. Speaking/Talking:

- ☒ Answering telephone, radio, or switchboard
- ☒ Communicating with County officials
- ☒ Communicating with general public
- ☒ Communicating with vendors
- ☒ Communicating with supervisors and/or with other employees
- ☐ Communicating with others _____
- ☐ Not essential to job function

2. Hearing/Listening:

- ☐ Ability to distinguish between different tones
- ☒ For communication with County officials, public, vendors, supervisors and/or other employees
- ☐ Not essential to job function

3. Reading: (ability to read and understand text)

- ☒ Essential to job function
- ☐ Not essential to job function

III. Numerical: Ability to perform arithmetic operations quickly and accurately.

- ☒ Ability to mentally perform accurate two digit calculations
- ☒ Ability to perform accurate calculations aided
by a calculator, adding machine or measurement device
- ☐ Not essential to job function

IV. Spatial Abilities: Ability to comprehend forms in space and understand relationships of plane and solid objects. May be used in such tasks as blue print reading and in solving geometry problems. Frequently described as the ability to “visualize” objects of two or three dimensions, or to think visually of geometric forms.

- ☒ Essential function
- ☐ Not essential function

V. Motor Coordination: Ability to coordinate eyes and hands or fingers rapidly and accurately in making precise movements with speed. Ability to make a movement response accurately and quickly.

1. Manual Dexterity: Ability to move the hands easily and skillfully. To work with the hands in placing and turning motions.

- | | |
|--------------------------------------------------------|----------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Use telephone | <input checked="" type="checkbox"/> Manipulate computer keyboard and mouse |
| <input type="checkbox"/> Use switchboard | <input type="checkbox"/> Use postage machine |
| <input checked="" type="checkbox"/> Use radio/console | <input checked="" type="checkbox"/> Use hand tools |
| <input checked="" type="checkbox"/> Use a calculator | <input checked="" type="checkbox"/> Use power tools |
| <input checked="" type="checkbox"/> Use a copy machine | <input type="checkbox"/> Other: _____ |
| <input checked="" type="checkbox"/> Use a fax machine | <input type="checkbox"/> Not essential to job function |

2. Finger Dexterity: Ability to move the fingers and manipulate small objects with the fingers rapidly or accurately. For example: electrical wiring.

- ☒ Essential to job function
- ☐ Not essential to job function

Explain: _____

VI. Physical Demands:

1. **Strength**: The quality, state or property of being strong. The power to withstand strain, force or stress.

Please check (✓) in appropriate boxes below.

Ability to manipulate materials and/or equipment (lbs)							Frequency of Manipulation		
	5-	5-10	10-15	15-25	25-50	50 +	Occasionally	Frequently	Continuously
Lift						✓		✓	
Push/Pull						✓		✓	
Hold/Carry						✓		✓	

Manipulation done from: ☒ ground to waist ☒ waist level ☒ waist to shoulder ☒ above shoulder
(Check all that apply)

Not essential to job function: ☐ Lift ☐ Push/Pull ☐ Hold/Carry (Check all that apply)

2. **Climbing**: To move up or mount by using the hands or feet.

Ladders

- ☒ Step stool
- ☒ 8' to 10' step ladder
- ☒ Extension ladder
- ☒ Other Scaffolding
- ☐ Not essential to job function

Stairways

- ☒ 1 flight
- ☐ 2 flights
- ☐ 3 or more flights
- ☐ Other _____
- ☐ Not essential to job function

Steps

- ☐ 1-2
- ☐ 2-3
- ☒ 4 or more steps
- ☐ Other _____
- ☐ Not essential to job function

3. **Ability to Stand, Sit, Walk, and Run**:

Please check (✓) in appropriate boxes below.

Duration (hours/day)							Occasionally	Frequently	Continuously
	0-1	1-3	3-5	5-7	7-9	9 +			
Stand			✓					✓	
Sit		✓						✓	
Walk		✓						✓	
Run									

If walking or running, over what type of terrain? ☒ flat ☐ rough ☐ both

Not essential to job function: ☐ Stand ☐ Sit ☐ Walk ☒ Run (Check all that apply)

4. Stooping, Kneeling, Crouching, and/or Crawling:

To bend forward or down from the middle of the waist or the middle of the back, to bend downwards, to lower oneself and/or to move freely on hands and knees.

Daily Amounts

- ☐ 0-5x ☐ 5-20x ☒ 20-50x ☐ 50+x
☐ Other _____ ☐ Not essential to job function

5. Reaching, Handling, Fingering, and/or Feeling:

To stretch out, extend, or put forth a bodily part. To touch or grasp something, by extending or stretching. To touch, lift, hold or operate with the hands.

Daily Amounts

- ☐ 0-5x ☐ 5-20x ☐ 20-50x ☒ 50+x
☐ Other _____ ☐ Not essential to job function

6. Seeing: To perceive or comprehend by the sense of sight.

Essential to job function: These characteristics are necessary (Check all that apply)

- ☒ Peripheral vision
☒ Night vision
☒ Focus (distinctness or clarity)
☒ Color perception (discriminate between colors)
☒ Depth perception (determine distance relationship between objects)
☐ Not essential to job function

VII. Driving: The ability to transfer or convey in a vehicle.

Transmission	Standard	Automatic	Multi-Gears
Car	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Van	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Small Truck	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Medium Truck	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Large Truck	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Truck w/Equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heavy Bus Equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not essential to job function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (list) _____			